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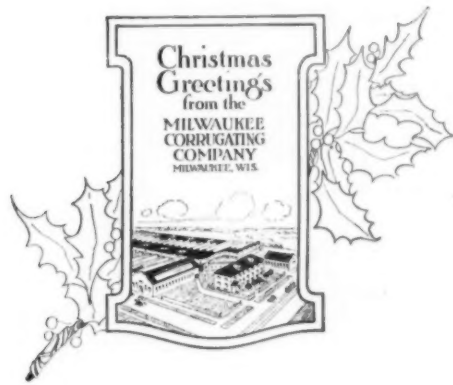
American Artisan and Hardware Record

Sheet Metal - Roofing - Warm Air Furnaces - Stoves

Vol. 88. No. 24

CHICAGO, DECEMBER 13, 1924

\$2.00 Per Year



A GAIN at this happy Christmas Season may the mellow merri-ness of long ago come romping into your home and business life and remain throughout all of 1924.

On this day, of all the year the best, when the spirit of good will towards man is paramount in all our hearts, sincerely we wish you true happiness

—contented retrospection of past events in home, social and business affairs—bright thoughts of the coming year.

Consider our hearty handclasp as coming with this earnest greeting for your merriest Christmas and happiest New Year!

Milwaukee Corrugating Company, Milwaukee, Wis.
Kansas City La Crosse Minneapolis Chicago Little Rock Boston

MILCOR



AMERICAN ARTISAN 1924

Warm Air Furnace Special 31st Annual Edition

- 1—Specific data and information regarding the Warm Air Furnace Heating Industry (from all angles) from manufacturers and dealer-contractors throughout the country.
- 2—Special articles by accepted authorities.
- 3—Detailed information regarding the latest developments in warm air furnace heating.
- 4—Business outlook for 1925 from manufacturers, standpoint.
- 5—Articles telling what the installer thinks about business for next year.
- 6—Opinions of experts on the improvements made by the industry covering both manufacturing and installation.
- 7—Developments and experiences of Oil Burning.
- 8—Editorial comment on the manufacturing, selling and installing of warm air furnaces.
- 9—Examples of proper installations of warm air furnaces, showing how to overcome both common and uncommon difficulties.
- 10—Reproduction of dealers' helps; how dealers use them, etc.

Subscribers

BE sure that you receive your copy of our 1924 Warm Air Furnace Special. If your subscription expires before December 27th—**renew now**. Requests for this issue after publication date cannot be guaranteed.

THE very rapid developments and the general sound prosperity of all business today demands that the Warm Air Furnace Heating Industry as a whole take more particular note of every individual branch of our industry in order that the greatest benefits and the most profits may accrue to it.

The extensive investigations carried out by AMERICAN ARTISAN in the pursuit of data and special material for its Thirty-first Annual Warm Air Furnace Special have brought to light highly valuable new and interesting facts.

This issue of AMERICAN ARTISAN is in the making now—it will carry the date of December 27th and will come to you with the opening of the new business year.

The ten points at the left will give you an idea of the ground it will cover. It will be by far the best, biggest and most valuable publication ever printed by anyone dealing with the Warm Air Furnace Heating Industry.

Manufacturers

ON this date (December 13th) advertising space sold for this edition exceeds amount of 1923 final count. First color forms close December 15th. Last color forms December 22nd. Send your space reservation and copy now. We maintain a copy service department—use it—IT'S FREE.

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Vol. 88

CHICAGO, DECEMBER 13, 1924

No. 24

Securing Good Will in Your Locality

"THE only way to secure the good will of your locality is to deserve it."

This statement is not original with us, but that does not detract from its truthfulness.

Here is a companion statement:

"And the only way to deserve good will is to base your policy on what is true and right and then stick to that policy as long as you live and do business."

The "trimmer" never has the good will of anybody.

The man who "skins" a job may make a little more money on that particular job, but it will stand as a very good reason for not giving him another chance to defraud his customers.

There is only one way of earning good will, and that is to "earn" it, by giving your customer good work at a fair price, and the furnace installer or sheet metal contractor who goes on the basis that because he cannot get a fair price he is, therefore, justified in doing a rotten job is just as wrong as the highway robber who excuses himself on the ground that he has no money while his victim had plenty.

"But," says some of our subscribers, "we have to make a living, and there are so many cut-price artists in the field that we cannot get a contract at a price that will pay us a reasonable profit if we are to do all that we agree."

The only answer that we have to make to such a statement is this:

"If you are really convinced that the condition in the sheet metal and furnace trade is as you have painted it, there is only one thing for you as an honest man to do, and that is to get out of that business."

But conditions are not as these men have painted them.

True, there are in every locality unscrupulous men who care nothing about their reputation and who skin every job they secure, as a matter of direct intent.

True, there are in every locality men who do not know how to estimate with a fair safety margin and who for that reason usually figure their jobs at too low a price.

True, there are occasions when even the careful estimator will bid low on a job in order to keep his shop organization together, and sometimes that bid will be used as a basis for seeking still lower prices.

But taking everything into consideration, the man who knows how to figure a job correctly, how to put it up properly and how to sell his ability and reliability has things very much his own way.

We know of hundreds of cases where such men secure jobs of large proportions without any competition to speak of, and where their estimate is requested more as a matter of record rather than for the purpose of comparison with bids from others.

He has built up good will for himself; he has earned it; he has deserved it, by always doing as he agreed, by doing the very best he knew how; by asking only a fair price for his work.

There is no short cut to good will. No one can gain it in any other way than by earning it.

Making excuses is another way of losing good will.

Satisfactory performance and service to the public is the only way we know how to gain good will.

Random Notes and Sketches.

By Sidney Arnold

Roy Walker, general manager of the Meyer Furnace Company, has among the employes in his factory a man who has the reputation of being somewhat henpecked, although he is a pretty decent sort of fellow.

One day Roy and this man were talking about financial matters and Roy asked him if he carried any life insurance, to which this reply came:

"No, sir! That women is handy enough with a flat-iron now, and there's no sense in hanging up a premium for a bulls-eye."

* * *

Eddie Stollenmeyer, of the Walworth Register folk, was in Chicago the other day and after an arduous day with Harvey Manny thought it would be well to take a little walk before going to the show. So he meandered down State Street and presently found himself at Congress Street, where two colored gents were arguing.

"Yes, suh, man," said Ambrose, "I can trace my relations back to a family tree."

"Chase 'em back to a family tree," said Mose.

"Naw, man; trace 'em, trace 'em—get me?"

"Well, they ain't but two kinds of things dat live in trees. Birds and monkeys. And you sho' ain't got no feathers on you."

* * *

Edward C. Sterry wrote the following little poem which, to my mind, has more than the ordinary bit of sense:

At the Rainbow's End.

Are you one of those fellows who
always want

A different job than they've got?
Are you of the kind who always
look

Across at their brother's lot?
The world's just full of folks like
this—

Forever changing 'round;
They kill the chance that might be
theirs

By never gaining ground.

There's a pot of gold at the rain-
bow's end

For the man who sticks to his
work;

And chances galore are right at your
door,

But they pass by those who shirk.
Stick to your job, fellows—climb
to the top;

The world needs men who will
lead;

The reward you will find at the rain-
bow's end

Is greater than gold, indeed.

Here is a little "squib" that you
ought to paste on your desk where
you will see it every day. Some day
you will take the hint:

Little drops of printers' ink,

Little grains of fact,

Make the dear old public think—

Sometimes even act.

* * *

They tell me that L. D. Mercer, sales manager of the United Alloy Steel people, had a piece of bad luck recently while he was out riding in his Pierce-Arrow near Carrollton, Ohio.

It seems that he was climbing a hill when for some reason the engine refused to work and no matter what he did—it simply laid down on the job; finally "L. D." decided that if he could get over the hill top maybe he could start it, so he hailed a farmer and paid him a nice bit of money (farmers are not backward in asking prices these days), and here we see him urging the tiller of the soil to make the horses move a little faster, but to little avail.

But anyway, our friend got home.

Whoever signs your pay check, you are really working for yourself. Your industry, your habits, your thrift, your ambition, all affect YOU more than your employer. Suppose your salary is \$5,000. You are then a \$50,000 going concern, paying 10 per cent annually on the investment. Consider yourself in that light. Think of yourself as a business. Study how to make that business more profitable, how to increase its net worth and annual earnings—*Nebraska Ironmonger.*

* * *

When Daddy Comes Home.

Just before the clock strikes six,
Mother, with towel and brush,
Call, "Come, children, hurry now!
Gently Bob! do not rush."

And as she smoothes our tangled hair
And changes our little frocks,
We hear the toot of the special
As 'round the curve it rocks.

Mother's eyes are shining brightly,
Her cheeks are nice and pink
As she runs to peek in the oven
Then lowers the gas a wink.

And we kiss her on the nose and mouth,
Ruffling her dress and hair;
Then race to meet our daddy,
Each trying to be first there.

And daddy yells, "Whoa, there! stop!"
As Bess clings to his neck,
And a neighbor-man holds daddy up
In case he'll be a wreck.

And when we're just inside the gate
Dad sniffs and says, "Steak and pie";
And our neighbor-man without children
Laughs like he was going to cry.

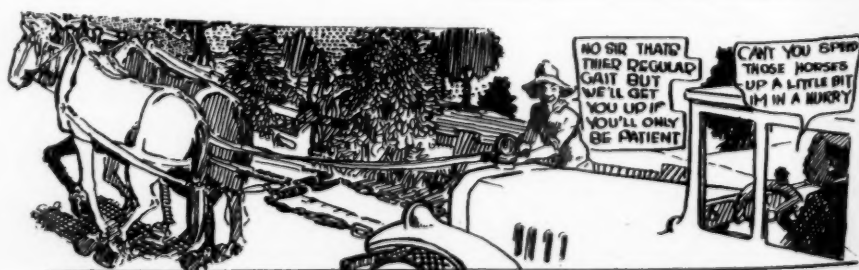
And when the sun is laying low
Against the rim of the earth,
We gather 'round father and mother
And watch the flames on the hearth.

And a cricket sings so happily
From its place near the fire where
Red apples sizzle and splutter
And God's blessing is in the air.

—Charlotta Bonheur Stearns.

* * *

If a man devotes himself to using his lower instead of his higher powers, he partly fails to give what every employer wants, namely, the best that is in him.



Millis Begins Instructive Series of Discussions on Oil Burners for Warm Air Furnaces

Installers Will Find Much Helpful Information in This New Series of Talks

IN this article L. W. Millis, of the Security Stove and Manufacturing Company, begins a new series of lectures or discussions of matters pertaining to Warm Air Heating. Judging from the articles

ing of coke from oil as well as from coal in order to meet his warm air problems. The man who failed to get at least some information about those things failed to be as useful as some other man who was more inquisitive about fuels.

And now, liquid fuel, in the form of oil, throws its challenge at us and we must learn its ways or hand over some of our work to other men.

It is possible the installation of the burner equipment itself will fall to other men; but any furnace man who is a "trouble-shooter" worthy of the name will be required to render service that can only be given by men who know something about this slippery fuel.

Let us first set ourselves straight

and is conducted through a pipe to a cooling, or condensing pipe immersed in water. The first vapor condenses to gasoline and is followed by naphtha and benzine.

Figure 1 illustrates the principle.

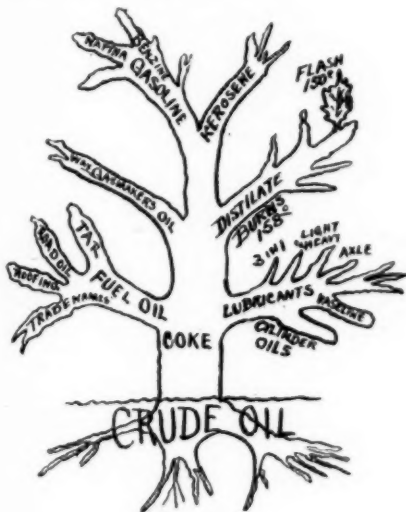
The vapor (or oil after condensing) progresses from light to heavy, on through kerosene, distillate, gas oil, fuel oil, lubricants, roofing pitch, road oils, etc. The final residue is known as petroleum coke or petroleum carbon.

There is one phenomenon we should look into; perhaps this is a good time to do it.

When we think of the vapor rising from the oil we think that all of that vapor should burn. But in practice we often find carbon in gasoline or kerosene or distillate that will only burn at a temperature near that required to burn the coke carbons in the residue left in the evaporator. It is well for a burner man to recognize that fact.

When a light particle of vapor leaves the mass of crude oil, it is possible for a minute particle of solid matter to cling to the vapor particle and be carried into the condenser.

In the production of gasoline and the lighter kerosenes this only oc-



by Mr. Millis which AMERICAN ARTISAN published during the earlier months of 1924, we feel sure that our readers will find a great deal of useful information in this new series which will deal with oil burning apparatus as applied especially to warm air furnaces.

All right—tune in:

Mr. Millis Is Broadcasting

The Warm Air Study Club will please come to order:

Whenever a man thinks he has fully mastered the details of his occupation he is just about ready for a steady skid down hill. The craft that keeps abreast with the changes affecting it is in less danger of going down hill than if it lags and fails to recognize new conditions.

The successful furnace man of the past has had to pick up information concerning gas and various kinds of coal and various methods of burning fuels. Also he has been compelled to investigate the burn-

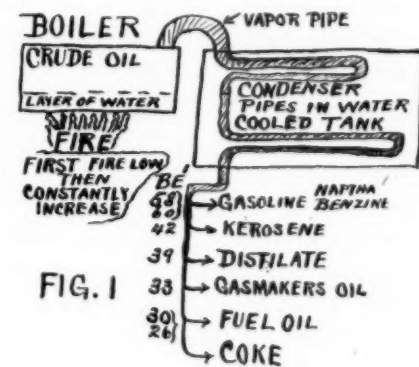


FIG. 1

regarding oil in order that we may not use misleading terms concerning oils. —

The terms crude oil should only be applied to the oil as it comes from the ground. It is "refined" into a multitude of marketable products.

This "tree" may serve to give us an idea of how crude oil is divided by the refiner.

The process of refining, or distilling, is fairly simple. The crude oil is put into a closed vessel with heat under it. That portion of the oil which evaporates at the lowest temperature rises, similar to steam,

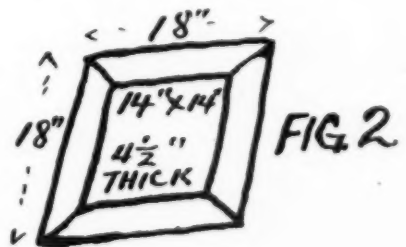


FIG. 2

curs in a small degree. However by the time the light oils have been extracted the remaining mass is heavy enough that the shell of the boiler may be burned; so they admit a little water into the bottom of the boiler to protect the bottom

shell. The water vaporizes and as it rises through the mass of heavy material carries the lightest particles over to the condenser and some of the heavy carbons cling to the steam particles as well as to the oil particles. Thus it happens that distillate oil has in it a considerable quantity of carbon that only ignites at temperatures higher than the oily particles of the distillate.

Distillate is the oil most generally used for domestic heating. We shall have occasion to refer to this carbon in distillate later on.

It is manifest that one refiner might keep the spigot on gasoline open longer than his competitor and a little light kerosene get into the gasoline. Consequently, oils are graded very largely by their relative weight. Of course, there are other properties, but we are interested mostly in weight.

You know the relative weight of a thing is expressed in its relation to an equal amount of water and is called its specific gravity. When a thing is lighter than water its specific gravity must be expressed in inconvenient decimals. Therefore the French system devised by Baumé is used to identify the weight of various oils. No, it is not German and is not pronounced Baumé. It is pronounced Bawmay with the accent on the "may".

The Bureau of Mines gives the following table comparing specific gravity and Baumé.

Table No. 1

Baumé	Specific Gravity at 60 deg.	Lbs. per gal.
10	1	8.328
15	0.9655	8.041
20	0.9333	7.772
25	0.9032	7.522 fuel
30	0.8750	7.286 oil
35	0.8485	7.065
40	0.8235	6.858 Distillate
45	0.8000	6.661
50	0.7778	6.476
55	0.7568	6.300
60	0.7368	6.134

You probably have already the idea that each particular commercial oil is in reality a mixture of oils with a small range of vaporizing point.

Some of the stuff in gasoline will vaporize at ordinary temperatures and in the presence of a relatively low temperature flame will give a

flash but may not continue to burn. This is exactly the same way soft coal ignites. Some of the stuff in soft coal will ignite at about 300 degrees but other portions of it will only ignite at about 1000 degrees.

When oil is sold its weight or Baumé is stated, also its flash point and the point at which it will burn. This table may help us a little; al-

places broken in the solder while installing or boys may pound them with sticks when empty and break the solder.

Many tank makers recommend welded seams in tanks but the metal must be thick in order to make a proper weld.

There is some controversy between burner men and tank makers

Table No. 2
Composite table from various sources.

Oil	Baumé	Flash Temp.	Burn Temp.	Lbs. per Gallon	BTU Gallon	BTU lb.
Kerosene	42	140	158	6.80	135.524	19.900
Distillate	38	160	190	6.96	137.402	19.900
Gas Oil	36	190	241	7.03	138.421	19.700
	32	200	250	7.21	140.811	19.600
Fuel Oil	24	150	180	7.58	145.612	19.000
		200	250			
	18	180	220	7.89	149.484	18.900
		280	350			

though in practice these figures all vary.

Before we take up the various types of burners it might be better to study some of the things incident to all burners.

The tank and connections are important though simple.

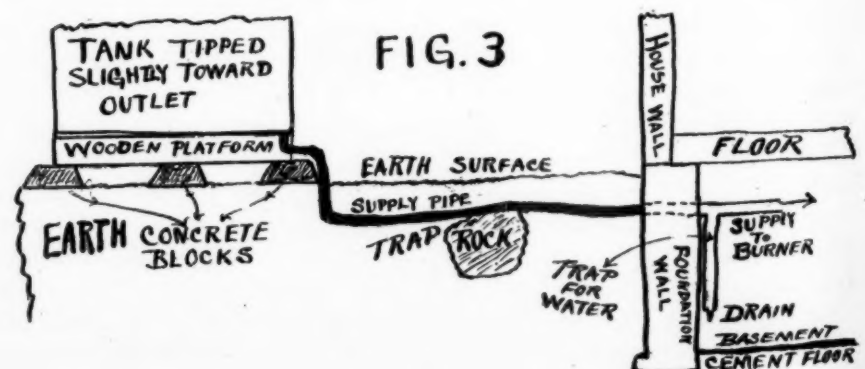
The tank should be set so it will not settle because in doing so it may break the pipe connecting. We find it economical to keep in stock cement blocks like Figure No. 2.

They are 18x18 inches on the bottom, 14x14 inches on the top and 4½ inches thick. Five of these will carry a 1000-gallon tank on soft ground. A wooden frame made of 2x6-inch timber on edge and covered with 2-inch lumber will divide the load so the bottom of tank will not sag.

One of the cement blocks should be under the center of the wooden frame. The tank may overhang the frame two inches. Galvanized soldered tanks are liable to have

concerning the pipe connections. Both parties agree that the tank should slope toward the drain just a little so it will drain and both agree that the outlet should be made with a swing joint so it can turn on the pipe in case the tank should settle a little, but the tank makers claim the outlet should be in bottom of the tank like Figure 3, so no water can accumulate in the bottom of the tank.

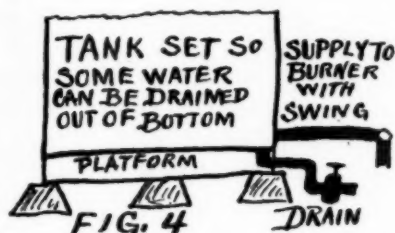
Many burner men have found that the user will not drain the trap provided at B in Figure 3, and as soon as B gets full of water it passes on to the burner and causes several sorts of trouble and a call for the "trouble shooter" (always on a cold day and a baby or sick person needing heat). After numerous calls the burner man decides to take oil an inch or two above the bottom and allow water to accumulate in the bottom of tank. In this way the burner man will not be called very often from his nice



warm bed at midnight (around zero) to draw a little bit of water out for his customer.

The tank man deponeth and seriously sayeth that this practice will result in destruction of the tank bottom in a very few years and he has various exhibits to prove it.

Upon cross examination he further testifies that if the accumulation of water is drawn from the bottom of the tank no harm results.



Therefore, many burner men install tanks as shown in Figure 4.

Tanks should be installed with a 16-inch manhole in top sufficiently large to get a good strong swab in to scrub bottom of tank once a year. Horizontal tanks are not nearly as liable to need cleaning as

vertical tanks having a large flat bottom.

The question is often asked how water gets into oil. Some blows into a poorly made manhole during storms. There is some condensation of moisture in the air in tank, just as moisture gathers on a pitcher of ice water. Oil "attracts" moisture and there is some water in it when bought.

Refer again to Figure 3. You notice a trap in the pipe underground. That will make no end of trouble. All the threads on pipes and fittings should be long and tight. All pipe should be cut with a hack saw instead of pipe cutters and no burr of any kind should be allowed inside of pipe. The threads should be perfect and shellac should be used in screwing pipes together. Do not use soap or white lead, as the oil dissolves it.

I had hoped to get some discussion on burners themselves tonight, but we got a late start and will take that up at a future meeting.

"Pertinent" Wants Scoville Advertisement Analyzed as to How 5-Room Installation Was Made at \$160

Says Codes, Meetings and Similar Work Is Without Avail If Jobs Are Planned on Basis of the Figures Given

IN our issue of November 29th, page 18, there appeared an analysis of a warm air furnace advertisement appearing in the *Decatur (Illinois) Herald*.

In this article the writer of the advertisement was admonished for the lack of reader interest contained in the ad.

There was, however, another point in the advertisement equally as important as the desire for reader interest about which nothing was said, due primarily to a lack of space.

A reader of *AMERICAN ARTISAN*, signing himself "Pertinent," has ferreted out this point and here's what he has to say on the subject: To *AMERICAN ARTISAN*:

I read with considerable interest your article on page 18, November

29th issue, in regard to installers writing furnace advertisements from standpoint of reader and consumer interest.

From a practical furnace man's standpoint, it would seem to me that the most interesting thing about this advertisement would be a little analysis as to how a furnace can be installed in a five room house for \$160 at a profit.

Maybe I am wrong, but I believe if you took a poll of your readers, you would find the majority were interested from that angle, more than they were from the constructive criticism you offered about the advertisement.

My personal opinion is that the codes, meetings and other work of this kind is of little avail if the installer continues to plan jobs on

the basis of installing them at such a figure.

Why not then, have this job analyzed, showing the material, labor, overhead and profit and let some of the rest of us in on it, and if it is humanly possible to install a job of this kind and make money at \$160?

Here's a chance to start something of interest to all furnace installers.

Yours truly,
"PERTINENT."

Of course the Scoville Company states in the ad that the \$160 was a special price and it may have charged the difference to advertising.

A thorough analysis would, as "Pertinent" suggests, prove interesting to other readers.

Garland Announces the Introduction of an Improved Furnace

The 1925 Garland warm air furnace, recently announced, incorporates some patented improvements which promise greatly increased efficiency. The most interesting and important of these improvements is what will be known as the "Garland Triplex Double Action Grate."

The name "Triplex" is applied to this grate because of the fact that the usual two bar shaking device has been replaced by three bars working in unison.

An ingenious device which permits both shaking and dumping to be accomplished by the same action of the crank or shaker is the feature which gives this new grate the name "Double-Action."

When a small lever, located in the front of the ash pit door frame, is moved to the right, the action of the crank dumps the contents of the fire pot.

The Michigan Stove Company reports that 1924 sales on the old model of this furnace were 100 per cent ahead of 1923 sales, so they feel that, with the new improvements, the prospects for much better business in 1925 are very bright.

Dwelling Occupant Finds Lack of Cold Air Circulation Reduces Furnace Efficiency

Says Auxiliary Cold Air Intakes as Now Installed Have as Much Pulling Power as an Ad for Bibles in the Police Gazette

AN enlightening circumstance in warm air heating installation practice came to our attention recently. It may not be phenomenal after all, but merely one of many similar installations, now balking the progress of warm air heating still to be rooted out.

An installer at Madison, Wisconsin, was called into examine the heating plant of a 2-story house having two separate and distinct warm air heating systems, one for the lower and one for the upper floor.

The system on the lower floor is the one under discussion.

The reason the occupant of the lower floor had recourse to the installer's advice was this: The warm air system worked capital until the temperature at the city of the four lakes began dropping to 10 and 12 degrees above zero; then he found

that even by entirely shutting off the living room and keeping the two bedroom doors closed the greater part of the day he could keep the kitchen, dining and bath rooms fairly comfortable after about 10 o'clock in the morning when the drafts were opened about 6:30 or 7 a. m. Of course, the entire lower floor could be made comfortable by early afternoon with hard firing all morning.

The suspicions of the occupant were aroused when he discovered that there were no cold air ducts in any of the rooms.

There was an attempt to provide for the recirculation of the air from the dining room and kitchen, and in the regard the occupant says:

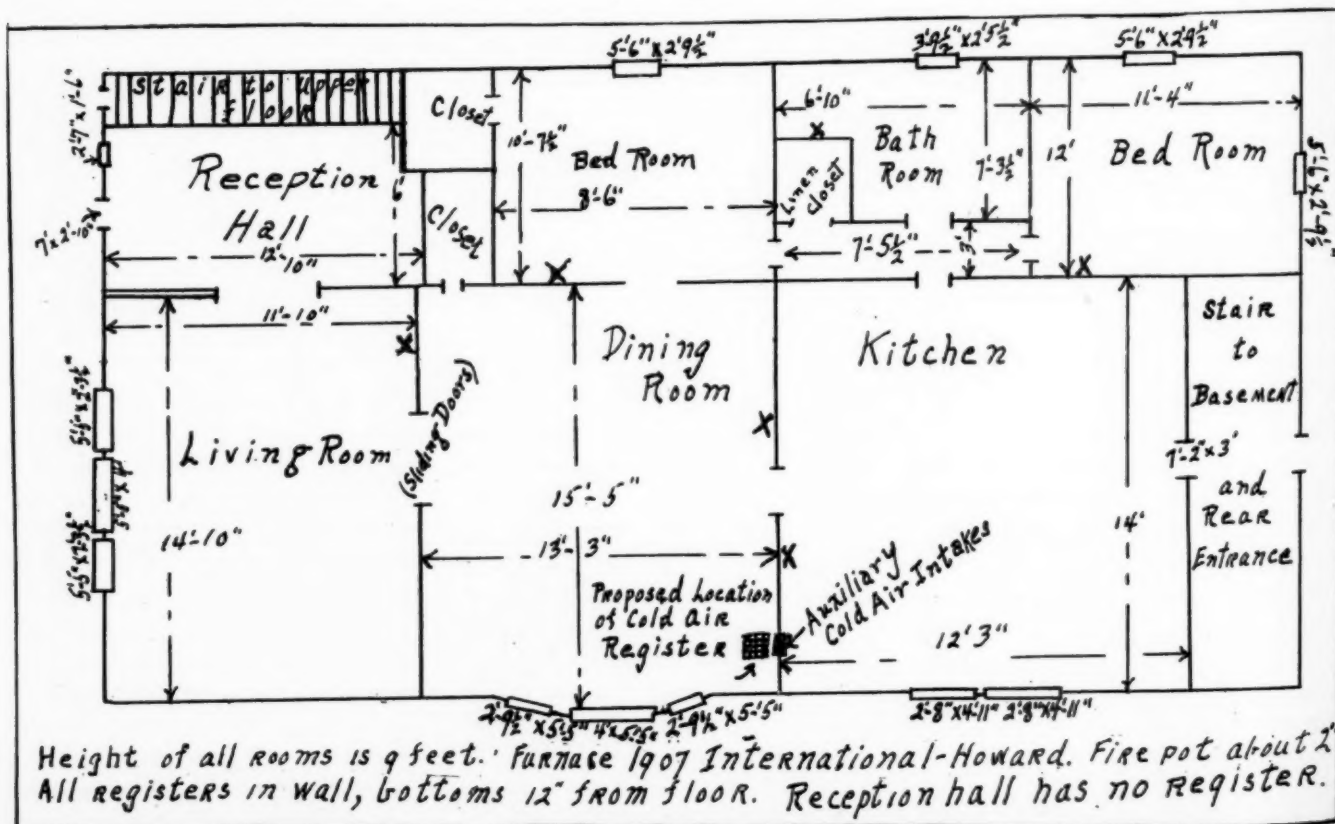
"You will recall that the original scheme was to draw the cold air from outdoors through a cellar window into a sort of closet (located

just below where the proposed new cold air register is shown in the sketch), from which it went into a pipe under the basement floor, and thence into the air chamber of the furnace.

"This scheme apparently proved unsatisfactory, because of the quantity of fuel required to heat the cold outside air thus introduced into the furnace.

"As a substitute for this, someone inserted in the baseboards two small iron registers, each about 3x12 inches, the bottom of each being about an inch above the floor. One is in the dining room, the other directly behind it in the kitchen (see "Auxiliary Cold Air Intakes" on sketch.) These registers have no more pulling power than an advertisement for Bibles would have if inserted in the *Police Gazette*.

"The next change was to pull off



Layout Showing Proposed Location of Cold Air Register in Dining Room

a couple of boards from the wall of the cold air closet in the basement, and to draw in air from the laundry room, instead of from outdoors. The boards removed were the upper ones, immediately below the dining room floor. The laundry room air is not sufficiently fragrant, and the circulation of air in the furnace is inadequate for our purposes.

"My installer friend was of the opinion that, from an engineering standpoint, probably the best place to locate a new intake would be on the floor of the reception hall, but that it would obviously be much more economical to locate it in the dining room floor, immediately above the existing air closet.

Location of Furnace Should Wherever Possible Be Determined After Registers Are Placed, Says T. W. Torr

Friction of Air and Other Complications Should Be Done Away With as Far as Possible

THIS, the sixth of a series of articles, entitled, "Rudyizing the Home," written by T. W. Torr, heating engineer for the Rudy Furnace Company, Dowagiac, Michigan, is based upon thought to be kept constantly in mind by the furnace installer.

The weights and velocities of air flowing through the system discussed and elaborated upon.

The article follows:

Rudyizing the Home.

"In laying out a furnace job there are two thoughts that should be kept constantly in mind.

"First, the radiating surfaces of the furnace will be efficient according to the velocity with which the air passes over them.

"Secondly, the velocity with which the air flows through the system is caused by the difference in the weight of the air entering the cold air faces and the weight of the air coming out the warm air registers after it has been heated by coming into contact with the heated surfaces of the furnace. This differ-

"At present it is difficult to heat the living room and the back bedroom when the temperature drops to about 20 degrees above zero, unless the dampers are closed in the pipes extending to some of the other rooms.

"My installer friend said that the pitch of the pipes could not be improved upon."

The present location of the warm air registers is indicated on the sketch by means of crosses.

Here's an excellent opportunity for some clever installer to tell this warm air heated dwelling occupant how to correct the system, thus adding to his own reputation and increasing the prestige of the industry.

ence is always slight and makes the circulation of air by gravity a delicate matter.

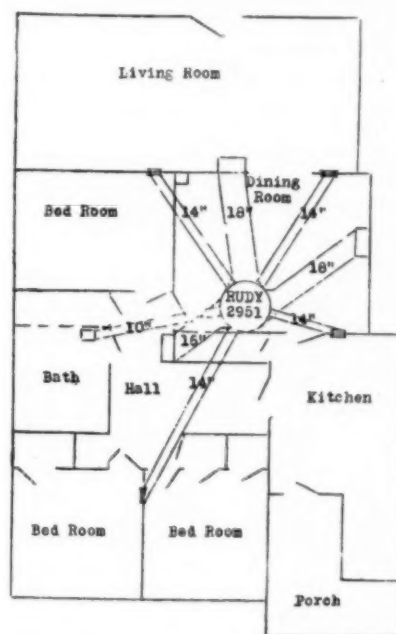
"For this reason every bit of friction and every complication must be eliminated as far as possible. Whenever the warm air encounters friction which offers more resistance than the tendency to flow through the system can overcome there is trouble. Then it will be easier for the air in the casing to rotate inside of it; that is, it will rise along the heated surfaces of the furnace and descend along the casing. When this condition prevails little or no air flows through the warm air pipes and heat radiation through the casing results.

"In placing the registers there are generally one or two preferred locations made necessary by other conditions. With these obviously preferred locations to start with, the others should be arranged so that they will describe a circle around a central point. Of course, it is not always possible to have each register located exactly on the perimeter of the circle. They should, however

be so located that a line drawn from the center of the circle to each one will bisect the perimeter at regular intervals. The obvious location for the furnace is in the center of this register distribution.

"These statements are made with a full realization of the many difficulties the installer encounters in actually doing the work of putting in a warm air furnace. The nearer the above condition can be approximated, the more efficient the job will be.

"While it is always better to locate the registers first and then select the location for the furnace, there are conditions where this can-



T. W. Torr's Layout

not be done. As an alternative arrange the registers as near as possible in a circle around the furnace.

"The accompanying sketch shows the installation of a Rudy "Hy-Power" heater in a large bungalow. In planning this job it was our desire to simplify it as much as possible by heating two rooms from one large pipe.

"This method has proved to be good furnace installation practice. The reason is that there is far less friction in the fewer large pipes than there would be in a number of small ones.

"It was not necessary to place the furnace in any particular place in the basement, so we were permitted to start by first locating the regis-

ters. The first location selected was the one for the two bedrooms at the south end of the house. The location for the bathroom could either be against the north wall or the east wall. The north wall location, however, would permit the taking off of the pipe leading to it, just the right distance from the pipe leading to the two bedrooms. With these two locations to start from, the others were selected with the idea of putting the heat where it was desired, at the same time permitting an equal distribution around the furnace. It is seen how nicely the job has worked out as the pipes are all of comparatively the same length, nicely spaced around the furnace.

"The long run to the two south bedrooms was compensated for by making it a 14-inch pipe instead of a 12-inch—the others equalize and balance up very nicely.

"Note the flexibility of the arrangement of the registers heating the living room and the dining room. These are two very large rooms, each of which has been provided with two registers. These two rooms are the ones that will be occupied most of the time, as they are the ones in which the family really will live. If necessary, the full capacity of the three 14-inch pipes can be used for the benefit of these two rooms.

"As stated in the previous article, difficulties in warm air installations rarely ever come from not selecting the right size of warm air pipes. Difficulties in warm air piping are most always found to be in an unequal distribution of the pipes around the furnace and the fact that locations for registers are selected which involve the use of a number of elbows and angles to reach them."

Roy I. Chandler Says Dampers Raised Too High in Charles E. Boone's Problem

In our issue of November 22nd Charles E. Boone, Hagerstown, Maryland, submitted a problem in which the furnaces gassed badly when banked at night.

In our December 6th issue "Furnace Man" made several sugges-

tions as to why these furnaces misperformed when banked.

Roy I. Chandler, of Los Angeles, California, suggests that the check damper is raised too high.

Mr. Chandler's letter follows:

To AMERICAN ARTISAN:

In answer to the Charles E. Boone problem appearing November 22nd, I believe the check damper on the furnaces is raised too high.

As there is not much heat going up the flue, there is not much draft, and so the cold air going into the pipe kills the draft.

I suggest that as a corrective measure the damper chain be adjusted so that the damper cannot be raised so high.

Yours truly,

ROY I. CHANDLER.

Los Angeles, California.

O. P. Schlafer, Appleton, Wis., Has Read AMERICAN ARTISAN Since First Issue in 1880

O. P. Schlafer, president of the Wisconsin Hardware Mutual Insurance Companies and president and treasurer of the Schlafer Hardware Company, Appleton, Wisconsin, claims the honor of being the man who has read AMERICAN ARTISAN the largest number of years, as he has been a subscriber since it was first published in 1880.

Mr. Schlafer's letter follows:

I notice in the November 15th issue that Messrs. Callahan and O'Neil have been subscribers for your paper for a long time.

The writer has taken AMERICAN ARTISAN since it was first published in 1880 and has been a continual reader all this time. In 1880 he was the junior member of the firm of D. B. Bailey and Company, Appleton, Wisconsin.

I was also pleased to see the mention of Joe Chandler. I have written Joe a letter. I used to buy goods from him more than forty years ago.

With best wishes, I remain,

Yours truly,

O. P. SCHLAFER.

Read the Future by Study of Economic Trends

Here are the views of Secretary of Commerce Herbert Hoover on the problems of distribution. A great deal of what Secretary Hoover says applies to the hardware and sheet metal trades.

"Investigation into the problems confronting industry today develops the fact that through pressure brought about during the war and the boom period following, industrial organizations had built up their plants and technical departments to a high degree of efficiency. When depression came, the pressure of competition forced these same organizations to reduce production costs, but the distributive agencies seem to have been neglected.

"As a result, we have today too wide a spread between the cost of an article at the producing point and the cost to the consumer. This is unquestionably due to inefficiency and waste in selling, and our big problem today, therefore, is elimination of waste in distribution. No individual can prescribe a cure which will fit all industries, for each one has its own particular problem.

"The first thing which occurs to me is the necessity for closer observation of economic trends. Sales and advertising plans must, to some extent, be based upon past performances, but the sales or advertising managers are apt to over-emphasize this and overlook general economic changes which might have a direct bearing on future sales policy. The slow changing as well as the rapidly fluctuating economic forces should be carefully watched.

"I would also like to stress the need for more intensive effort in selling. Very few producers have the capacity for selling the United States as a whole, but we find many of them trying to do this. Much effort is lost upon some territories which, if properly studied, would fail to show possibilities sufficient to justify the expense of selling and advertising. A great many manufacturers would undoubtedly find that by limiting their efforts to more circumscribed areas and intensifying

their sales activities in such areas, they would not only reduce their selling costs, but would probably produce a larger volume of business. The study of individual sales areas is, therefore, of great importance to

the sales and advertising department. "You, as advertising men, have a certain responsibility in helping to find a solution for this problem, because you are so intimately connected with the sales departments. Your

attitude suggests that you recognize the importance of the subject and I feel sure that a thorough discussion will produce some means of constructive action toward thorough efficiency in sales and advertising.

C. E. Urquhart Aids Garretson in Arranging Furnace and Ducts for Heating 1-Story Garage

Says, However, That Size of Furnace Cannot Be Determined Without Further Details

YOU furnace installers who have had occasion to park in garages and who after paying your bill have still the inclination to ruminate on the heating problem which confronts the average garage owner will find here plenty of opportunity for the exercise of your skill and imagination.

C. E. Urquhart, Beckley, West Virginia, has evidently been in just such a position, as he has set himself about helping E. L. Garretson, Williamstown, Pennsylvania, out of his difficulty.

Mr. Garretson's problem appeared on page 19 of our November 29th issue.

Its object was to heat a 1-story garage with a warm air furnace, the garage having no basement and

the furnace location being specified.

Mr. Urquhart has drawn a sketch of the furnace with the cold air duct locations designated.

This arrangement of the furnace, he believes, will do the work required.

He states, however, that he was unable to supply the size of furnace and ducts, but this he could readily do were the height of ceiling and the exact size and location of the windows given.

TO AMERICAN ARTISAN:

Referring to E. L. Garretson's problem, in the issue of November 29th, of heating a 1-story garage without basement with a warm air furnace.

I have drawn an explanatory sketch of the installation which I

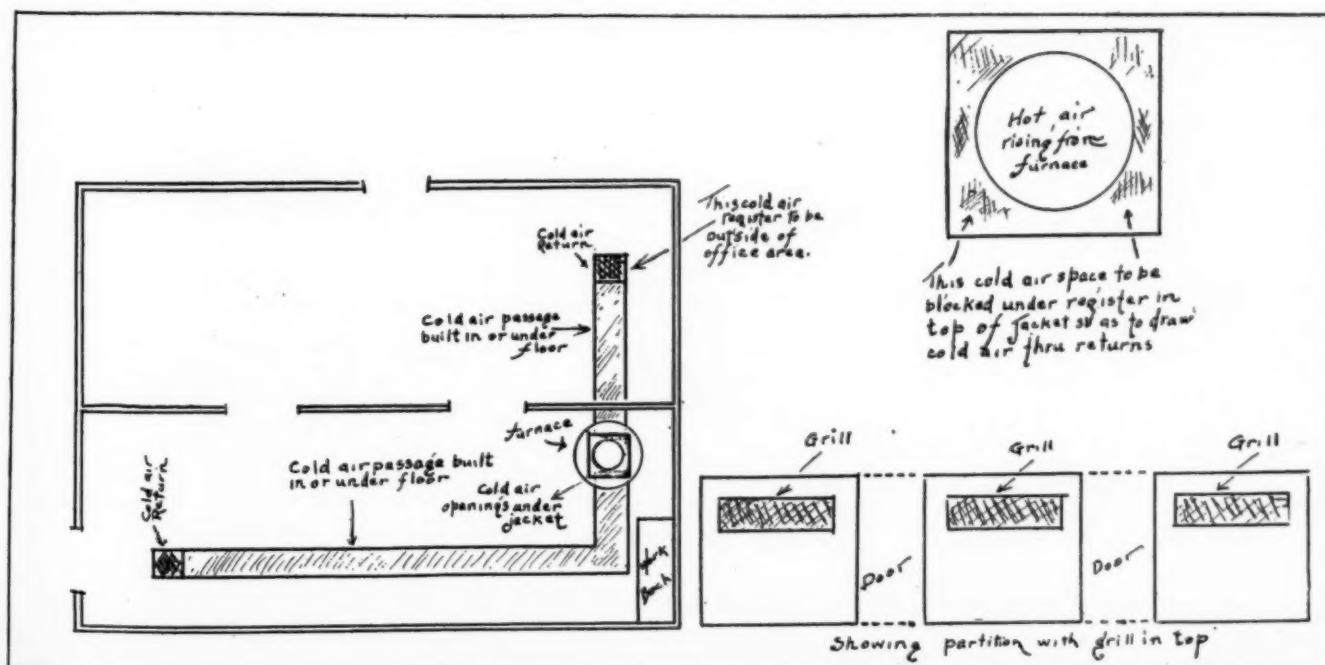
believe would be satisfactory for heating the garage.

However, should a cheaper method be desired, the outside jacket could be braced and a series of holes cut around the bottom approximately 8 inches in diameter, and the cold air route from the top closed up.

Regarding the size of the furnace, using some of the words from the comments of AMERICAN ARTISAN in that issue, I, too, note that some of the pages have been torn out, and further dimensions would have to be given in order to determine what size furnace should be used.

Yours very truly,

C. E. Urquhart,
Beckley, West Virginia.



How C. E. Urquhart Would Heat Mr. Garretson's Garage

Nickel Zinc Can Be Profitably Used in Making Kitchen Range Canopies

Made Up as Range Canopies Kothe Explains How Different Metals Look

THE matter of making kitchen range canopies, as well as canopies used in manufacturing plants is an interesting line of work. On many of these jobs a plain hood of galvanized iron is suitable, on others it pays to be more particular.

For instance most inexperienced mechanics in this line of work will immediately suggest a common square to round hood as at "A" in our drawing. It is seldom that this type of hood looks well, and especially not if the designer has never developed his artistic ability. For small hoods, with an eye to good

looks a right respectable hood can be designed on this order. Here the height is generally made shallow, and not so high as sketch "A" indicates.

Some folks will make the height to suit the width of the sheet of metal—something akin to a smoke stack extension. Still to the designer, he honestly believes it is the finest job that anybody in the world could do, but that does not make it so with the rest of us.

A much better design and proportion for most canopy work is shown at "B." These can be made out of such metals as blue steel,

galvanized iron, zinc or nickel zinc. The galvanized iron looks well while it is new, and after a short while the galvanizing is rubbed off or it is not kept clean, and a rather unsightly appearance is left. With blue steel the metal is liable to rust if not looked after thoroughly in all places. Zinc and nickel zinc have the advantage of a uniform color throughout, but if not kept clean will also not show up any too well. But this latter is rather a matter of the management not keeping the metal clean.

In many jobs where ornamental design and color is desired; such canopies can be made with a mixture of blue steel and nickel zinc. The lower band and the crown mould can be made of nickel zinc, while the body of hood is made of blue steel. The combination will look well if proportioned correctly.

In laying out a hood as at "B" a front elevation is first drawn, making the length E-F to suit, and the height a-b also as becomes the job. Where low ceilings are met with, the hood must necessarily be made shallow, since from six to twelve inches should be provided for head room for the chef. For gravity work the size of the discharge pipe should be about 1/15 the area of the base of hood. Thus, if we have a hood of say 30×60 inches, we would have an area of 1800 square inches in the base. Now

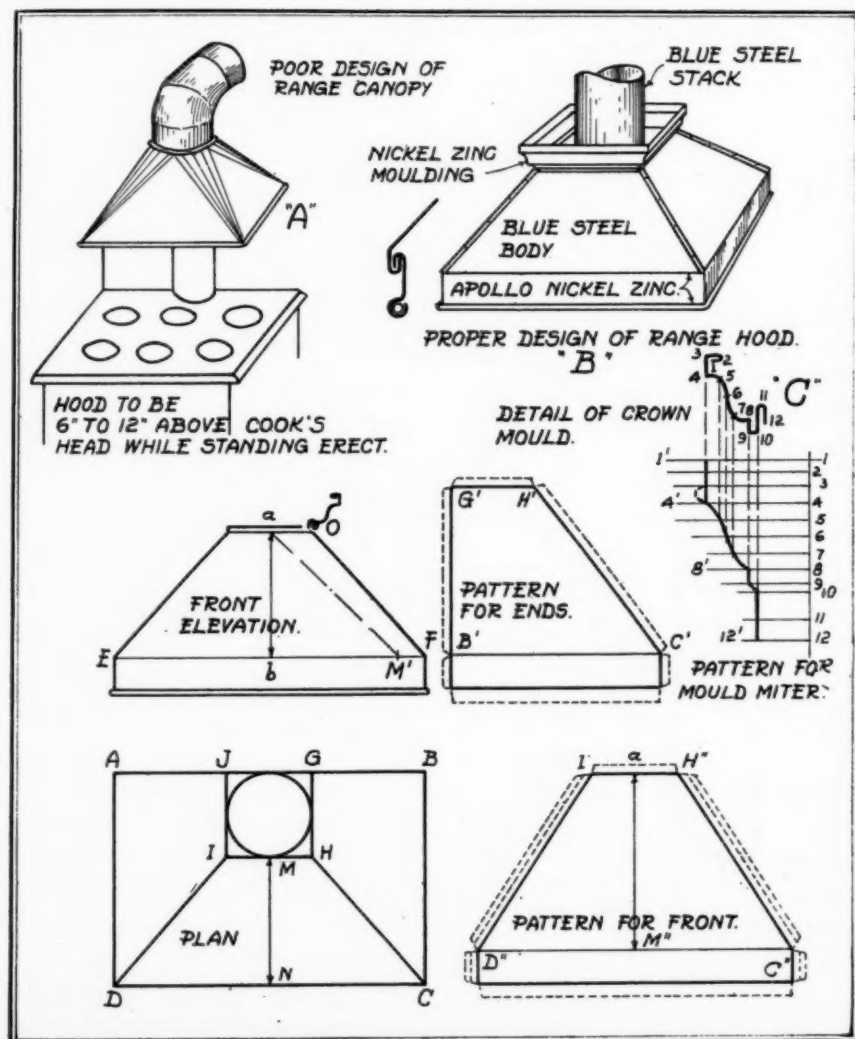
$$\frac{1800}{15}$$

$$= 120 \text{ square inches}$$

$$12\frac{1}{2}$$

that the discharge pipe must contain. Using a circumference and area table, we see this is equal to a 12½-inch diameter of pipe.

We next draw the plan, placing the discharge outlet where desired and to our measurements. In this case we have it on center as G-H-I-J. To save drawing an end ele-



Details for Range Hood.

vation, we pick the flare M-N of plan and set as b-M' of elevation, and a-M' is the true length of front.

To lay out the pattern for ends, draw a right angle G'-B'-C', making G'-B' equal to O-F of elevation, and B'-C' equal to B-C of plan. The top G'-H' is also taken from plan G-H, and this enables us drawing the slant hip line C'-H'. To this the lower apron is added, and also the several lap edges shown by the small dotted lines.

The pattern for front is set out by drawing a line D''-C'' equal to D-C of plan. From center M'' erect a perpendicular line as M''-a,

equal to a-M' of elevation, and then add the width of top as I'-H'' taken from plan. This enables drawing the hip lines, after which the apron and lap edges are allowed.

As the back is straight, the front elevation will represent the pattern for back, only edges must be allowed extra. A quarter or three-eighths-inch rod is inclosed along the bottom edge as a stiffener and where nickel zinc is used the lap is bent reverse to hold the polished side outside over the wire edge, as our detail above "B" shows. The allowance for wire edge is equal to $2\frac{1}{2}$ times the diameter of rod.

Sheet Steel Trade Extension Work Is Started Off in Right Manner

Well Written Booklets Have Been Prepared to Secure Attention and Interest of Buyers and Users

AS MENTIONED in previous issues, the Sheet Steel Trade Extension Committee, which is an organization formed by a number of sheet steel manufacturers, has undertaken a three-year program of advertising and other means of promoting the use of sheet steel.

Among these are two series of pamphlets, entitled, "Sheet Steel Service" and "Making Markets" respectively.

From the former we quote:

Above the Rim of the Industry.

"The Chinese have a proverb to the effect that 'he stumbles less who looks to the horizon than he who keeps his eyes on the road at his feet.'

"Which is an ancient and different phrasing of the idea we hear frequently expressed, that business men are 'too close to their business'—they 'cannot see the forest for the trees.'

"The steel industry serves such a vast number of industries and trades, its activity and welfare are so closely interlocked with the whole fabric of commerce, its manufacture and distribution are of such magnitude, that American business men have long been accustomed to

looking to this industry as the barometer of 'business conditions.'

"By this same process of reasoning, the makers and distributors of steel in its various forms are largely influenced in their policies by the conviction that the volume of steel business is *entirely* influenced by the 'conditions' of general business.

"However true this may be of other forms, it certainly is not true of sheet steel. The great variety of applications for which sheets are now used is a prophecy of the still greater number of forms of use to which they may be put.

"The opportunities for 'creative' selling of sheet steel are very great.

"New markets can be developed. The volume through old markets can be accelerated and increased.

"Demand is not an automatic force. It is more often the result of suggestion—of education. Selling is teaching.

"Such educational work for an industry can be made effective only by the industry itself, expressed unitedly by all its branches.

"The jobbers and distributors of sheet steel are as much and as important a part of this industry as are the manufacturers.

"The purpose of 'sheet steel service' is to provide an instrument of inspiration, information and coöperation for the selling forces of the industry. A means to aid in lifting the eyes of merchandisers of steel above the rim of the industry.

"The spirit of the publication will be to 'look up—not down, look out—not in, look alive—and lend a hand.'

To the man who is selling, the committee has a very special message, to which we are glad to give further publicity, as follows:

Specialized Selling.

"There is an old adage among salesmen to the effect that 'anybody can sell a man something that he wants, but to sell a man something he does not want takes a salesman.'

"Like a good many other statements which attempt to express a general philosophy in a few brief words, this one contains a large kernel of truth put in a manner that is open to challenge.

"As a matter of fact, no one can make anybody buy anything which that person does not want, except at the point of a gun.

"A better statement of the subject would be that 'anyone can take an order from a man for something he wants, but it takes salesmanship to make him want a thing.'

"To do that successfully requires not only the thorough knowledge of the product sold, which is so constantly urged upon salesmen, but to an equal or even greater extent, a thorough knowledge of all the conditions which relate to the possible use of the article by the possible purchaser.

"In other words, to know who are possible buyers, and to know the buyer's needs from his own point of view is at least as vital as to 'know the product.'

"Most sales executives will doubtless agree with all of this—probably dub it 'old stuff.' But it leads logically to a conclusion which, if it is old stuff, is all too little employed.

"That conclusion is that this principle of selling which is so important in the work of the individual salesman is equally important in the gen-

eral saleswork of 'the house'—the concern itself.

"Men who operate commercial research organizations are constantly commenting on the lack of knowledge by the average concern as to how its products are used by its customers—the absence of systematic methods for recording the values secured from such use—and the still greater lack of systematic methods for searching out other customers who can secure equally valuable results by the same or slightly varying methods of use.

"How many manufacturers expend as much effort in searching for new sales outlets as they spend in searching for methods to reduce production costs?

"One shining example of the results of such effort is shown by the yeast manufacturer who learned that yeast is valuable as a tonic-food.

"Some years ago a leading manufacturer of filing cabinets struck a profitable new sales channel through the employment of special selling methods in developing customers among scientific and professional men who had special filing and data-keeping problems.

"Most of us think of moving picture equipment as having to do only with the field of public theatrical entertainment, yet large businesses thrive on the result of specialized selling of such equipment for industrial and sales purposes. And there is a rapidly developing market in cameras, projectors and film for home use.

"Specialized selling with its essential auxiliary of research work requires effort—time—study—whether it is done by the individual salesman or 'the house.' But it pays.

"In selling, as in every other line of human activity, there are rich rewards for the man or the concern who 'can make two blades of grass grow where only one grew before.'"

The Sheet Steel Trade Extension Committee is supported by the following manufacturers:

Alan Wood, Iron and Steel Company, Philadelphia.

Allegheny Steel Company, Brackenridge, Pennsylvania.

The American Rolling Mill Company, Middletown, Ohio.

Apollo Steel Company, Apollo, Pennsylvania.

The Ashtabula Steel Sheet Company, Mansfield and Ashtabula, Ohio.

The Central Steel Company, Massillon, Ohio.

Chapman Price Steel Company, Indianapolis.

The Eastern Rolling Mill Company, Baltimore, Maryland.

The Falcon Steel Company, Niles, Ohio.

Follansbee Brothers Company, Pittsburgh.

Inland Steel Company, Chicago.

Mansfield Sheet and Tin Plate Company, Mansfield, Ohio.

Michigan Steel Corporation, Detroit, Michigan.

National Enameling and Stamping Company, Granite City, Illinois.

Newport Rolling Mill Company, Newport, Kentucky.

The Newton Steel Company, Youngstown, Ohio.

The Parkersburg Iron and Steel Company, Parkersburg, West Virginia.

The Reeves Manufacturing Company, Dover, Ohio.

Republic Iron and Steel Company, Youngstown, Ohio.

Seneca Iron and Steel Company, Buffalo, New York.

Sharon Steel Hoop Company, Sharon, Pennsylvania.

The Superior Sheet Steel Company, Canton, Ohio.

The Trumbull Steel Company, Warren, Ohio.

United Alloy Steel Corporation, Canton, Ohio.

Weirton Steel Company, Deirton, West Virginia.

West Penn Steel Company, Brackenridge, Pennsylvania.

Wheeling Steel Corporation, Wheeling, West Virginia.

The Youngstown Sheet and Tube Company, Youngstown, Ohio.

File Your Ideas to Better Business in a Scrap Book

Most successful retail merchants keep a "scrap book." This may seem like child's play to some men and entirely a waste of time. It is surprising the number of ideas one can pack away for future use in this way.

Ideas are constantly flitting through the mind of the business man. Because an idea comes is no sign it will be tap in a man's mind when he has need for it unless he files it away somewhere on paper so that he can recall it to mind when it is needed. Here, then, is where the "scrap book" comes in handy.

In glancing over the trade paper, too, many ideas are gathered and unless they are clipped out and filed away with proper indices, they become lost or destroyed and are gone.

If you have no method of filing your ideas on paper as yet, now is the time to start.

What Kind of a Member Are You for Your Association?

Secretaries often wonder just how many members would measure up to the following duties which go into the makeup of a real "honest to goodness" association member. E. E. Cole, secretary of the Calumet, Michigan, Building Trades Employers' Association, offers a good conception of these obligations. Here they are:

The member who always pays his dues promptly.

The member who attends meetings with regularity, and is always on the job.

The member who never forgets that he not only belongs to the association, but is a part of it.

The member who never shirks committee work.

The member who is not too busy to accept office and assume responsibility.

The member who believes that association work is a vital part of his business.

The member who is willing to accept the judgment of the majority.

Frank Harrison Wants Frye to show How He Obtained the Lines for Metal Crafters' Benefit

Says He Insists Upon Having It Done Entirely With a Drawing, Thus Passing the Buck to the Engravers

IN SPITE of the fact that Calvin Coolidge was elected President of the United States to succeed himself, and in spite of the fact that he refused to use the Presidential Special while en route to the Chicago Stock Show, thus insuring peace and quiet for another four years and setting an example of economy in government, the truce between the literary bard of Kenilworth (Illinois), and the modern Pythagoras of Tullahoma (Tennessee), has been terminated, thus again placing the two worthy gentlemen in the pillories of vituperation.

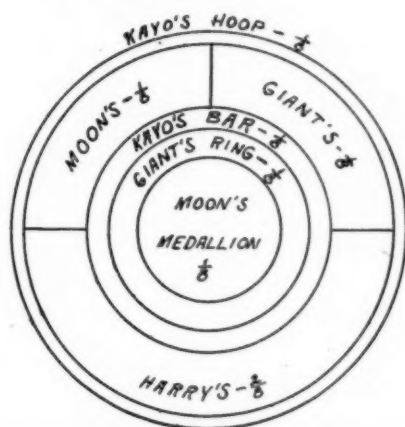
Here's what Frank Harrison wants Harry Frye to do:
To AMERICAN ARTISAN:

The armistice is off. Vexatious war which has claimed a bigger toll of bystanders than combatants breaks forth anew. And it's all because Mr. Frye has been so unethical as to toss a brick toward a victorious combatant after he has left the field of battle. I'm not "too proud to fight" even though some of the readers might wish I were. Anyway, at the risk of incurring their displeasure, I'm back for one more round with Harry.

Would you note that actually he boasts of remorse for having "saved" the poor tank man? But who has seen the tank man? Who has heard, first hand, his own testimony as to his recovery? We just have Harry's word for it. As a matter of fact it is slowly, but surely, oozing out through the knowing nods and wise whisperings of the carnival goers, that Harry is carrying in his mind a heavy burden which he is trying to conceal. This remorse is a true remorse for what has actually happened and Harry is trying to twist it into a bravado illy covering the facts of the case that, with a "new discovery" obsession, he organized a

poison squad of one lone man, to try out his new concoction, and hid him away there in the tanks to await the dire doom of a dreadful death at the hands of this arch malpracticing sorcerer. Would that we could find the frail form he has so cunningly concealed.

But here is the brick he threw. He says with innuendo, "the knot failed to hold." You all know what he means. Witness this story I am about to relate of another of Harry's escapades and see if you



do not agree with me that the knot was misplaced anyway, and that it should have been self imposed on this aspiring Houdini.

One day last summer little Kayo just quietly strolled away from the carnival to feast and rest his little eyes for a few hours on the big outdoors of Dixieland. His wanderings brought him upon the site, so reputed at least, of ruins of an ancient city of mound builders. His childish curiosity and investigation revealed to him and rewarded him with a sort of circular, golden shield that might have been a part of the armor of some ancient king.

Elated with his discovery, Kayo started back for the carnival grounds, but it was night before he reached there, weary and tired, with his man's sized burden. It was fortunately so, for he was able to creep

in unnoticed and conceal his riches. Next morning, hid away in his tent, he was discovered polishing the shield, by the giant man. The giant perceived its great value at once, but disdaining to use rough stuff on Kayo, resorted to the more subtle method of tipping Moon Mullins to the fact that there was a small fortune lurking about, but first exacting a fifty-fifty agreement of Moon before revealing it.

Anyone who has followed Kayo's career knows he was not so easily to be relieved of his treasure, so Harry, the Artful, was called into council. Now, Harry, after knocking around with Moon, has acquired a weather eye for the gilt, also. So it was finally, that this novel way of dispossessing Kayo of the most of his glittering gold was hit upon. Kayo heard a regular sermon on the curses of riches, with Moon and the giant sitting in the amen corners, punctuating the discourse. He heard how much more blessed it was to give than to receive, that this terrible load of gold would break him down to carry it, and how much nicer would it be if Kayo gave away the most of the nasty stuff, retaining only a slight little souvenir of his memorable visit to the mound builders' city. Harry would show him how to divide it so that Kayo got the souvenir. It was Harry's masterpiece of conjury and little Kayo was melted into the most pliant and charitable bundle of human wax.

Thereupon the despoilers themselves fell into a wrangle and bad feelings were engendered among them before a plan of division was worked out. Harry argued that since it was his mastery that had released the gold to them, his should be the larger share. Moon and the giant were simply unimpressionable of any such argument, however, so

finally the division was started on a basis of eight equal parts, each to receive two-eighths of the shield.

Moon clamored for a circular piece of one-eighth right out of the center of the shield. He would take it to the booth of the metal crafters and have it dolled up in true carnival characters as a medallion for a certain idol of his heart. The giant inspired by Moon, insisted on a ring of one-eighth, the next concentric to the circular piece Moon was taking. He, too, would go to the metal crafters and have it fashioned into a wedding ring for the fat lady to whom he was engaged. At this point Kayo aroused himself sufficiently to demand his share. He was talked into the idea that a little hoop of gold and a little golden bar to roll it, each to contain an eighth of the shield, would be the very things for him around the carnival grounds. The metal crafters could work all sorts of grotesque carnival characters into them and Kayo would be so pleased. The hoop should come out of the outer ring of the shield and the bar made of an inner ringlet being taken right next to the one allotted to the giant. This disposed of half of the shield and seemed to satisfy the sentimentality of all concerned. Harry would now take his share of two-eighths in one chunk out of the remaining ring and divide the portion then left equally between Moon and the giant for their other two-eighths.

The plan of division approved, Harry quickly scribed the division lines on the shield and together they all went to the metal crafters where the shield was soon cut up and divided. Harry got his allotment and departed, leaving the other three to battle alone with the metal crafters.

Kayo, the hypnotism worn off, now declares he was "rimmed" in the deal, and both Moon and the giant view with suspicion the share which Harry allotted to himself. Harry declares he was entirely "on the square" in the "divie," that he marked it out entirely by constructive geometry, and that "if there was any skull duckery, the metal crafters must have pulled it."

Now, Harry may not be as bad as the circumstances would seem to indicate he is, and we are willing to help clear him of this triple plated charge of hogging more than two-eighths of the gold to himself for his services if he will just show us how he arrived at the various division lines for the metal crafters. He can show it entirely with a drawing, and this I shall insist upon, as it is in accordance with my alliance recently effected with the printers, thus passing the buck to the engravers and assuring for the AMERICAN ARTISAN compositors their even sleep unmarred with nightmares of signs and symbols dancing to the baton of Harry Frye and his devotees.

This problem is a simple little one and Harry will unquestionably be able to supply its solution without assistance, unless affairs of recent weeks have seriously affected his memory of the exact doings of the day he so eloquently denounced the possession of gold. Anyway, boys, give him a chance.

Yours very truly,

FRANK HARRISON.

Kenilworth, Illinois.

Edward V. Peters Elected President National Paint, Oil and Varnish Association

Edward Volney Peters, General Sales Manager of the New Jersey Zinc Company, has been selected as the new president of the National Paint, Oil and Varnish Association, succeeding Norris B. Gregg.

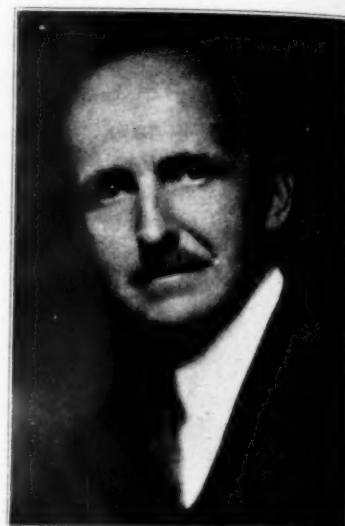
Mr. Peters has been associated with the New Jersey Zinc Company for almost 20 years. During that time his qualities of honesty, integrity, intensity of interest and above all his capacity and willingness for hard work have become well known to his friends and competitors alike.

He was born in St. Louis, Missouri, in 1881. Seven years later he moved with his parents to Chicago. Later he moved east and completed his school life at Greenville academy.

He began his operations with the

New Jersey Zinc Company in 1906, and became purchasing agent of that company in 1913. He was transferred to the sales division in 1919.

Mr. Peters' loyalty to association work is also well known. He was one of a group of fifteen men who



Edward V. Peters.

founded the National Association of Purchasing Agents.

In the N. P. O. & V. A. Mr. Peters' activities extend over a long period. In 1923 he was made vice-president of the eastern zone, and he was made president of the New York Paint Club for the year 1924.

He is now in Europe studying business conditions and will visit England, France, Belgium and Germany before he returns to America.

Hyro Manufacturing Company to Make Double-X Hand Punch

Announcement is made to the trade that the double-X hand punch, formerly sold by the Parker Kalon Corporation, is now manufactured and sold exclusively by the Hyro Manufacturing Company, 352 West 14th Street, New York city.

It is also announced that a new Duplex punch will be placed on the market shortly.

The officers of this new company are, President, H. Rosenberg; secretary, D. L. Beck.

Apollo Metal Works Claims Scott's Tin Night Shirt for Its Apollo.

The Apollo Metal Works, La Salle, Illinois, too, believes it has a claim on the tin night shirt offered by William Scott, Juniata, Pennsylvania, for a solution to his problem appearing in our November 11th issue.

The following letter to Mr. Scott is the evidence upon which the Apollo Metal Works bases its claim:

"Well, Mr. Scott, we claim that tin night shirt which you offer for the best solution of your problem, on page 25 of the November 15th issue of AMERICAN ARTISAN.

"Solution—If two sides of your rectangular tank are laid down flat side by side, as it were, a surface 6 by 8 feet is formed. Squaring the two sides and adding these together you have 100 square feet, the square root of which is ten feet or shortest line between two points A and C through B and touching the bottom and side at every point.

"And now considering as how our night shirt is still due for several months usage, we suggest that you have the tin night shirt made for our Apollo, as this modest gentleman has not worn one for many moons."

We do not know whether or how the honorable Mr. Scott arranged payment to the Apollo metal works, but we do know that he was flabbergasted at receiving their solution that he reacted by turning his thoughts into a poetical vein as follows:

To Apollo Metal Works:
You have won the prize I promised;

But I fear a mortal sin.
If I dare to make a "nightie"
For Apollo out of tin;
And your polished zinc-and-nickel,
Though a marvel to behold,
Wouldn't match this old Apollo's
Magic hair of burnished gold.

In the cliffs of high Olympus
Stood Apollo's icy palace,
And he never wore a "nightie,"

Though he felt the blizzard's
malice.
There with melody supernal,
Though his perfect form was
bare,
He enchanted gods eternal
And the mortal maidens fair.

Through the ages long and weary
He believed it wouldn't hurt
To dispense with cloaks and
clothing;
So, he never wore a shirt.
Now, with somber shadows falling,
When the sun begins to sink,
He would spurn a shining "nightie,"
Even made of nickel-zinc.

Milwaukee Sheet Metal Contractors Hold Monthly Meeting December 3.

The regular monthly meeting of the Master Sheet Metal Contractors' Association of Milwaukee, Wisconsin, was held December 3rd, President John Miller presiding.

The secretary was instructed to send a notice to our Senator and Congressmen, also to the Associated Advertising Clubs of the World that this Association objected to the increase in rates of parcel post.

John Bogenberger gave a report on the Employers' Council. He also explained the action taken by Schmidt & Son, Inc., to restrain the city from enforcing the minimum wage ordinance on a School Board Contract. The Supreme Court of Wisconsin decided in H. Schmidt & Son favor.

Notices are to be sent to the sub-contractors that a meeting will be held some time in January, 1925. The secretaries from the various associations are urged to send in a reply as to whether their delegates will attend this meeting; also state preference as to an afternoon or evening meeting.

The secretary was instructed to send for fifty more overhead blanks. Each member is to receive a blank form, with instructions to fill out and bring same to our February meeting without signatures.

Reliable Sheet Metal Works, 1078 4th avenue, was accepted as a member.

Nomination of officers took place and the following were nominated: For president, R. Kelm, J. Graf and J. Hollitz; for first vice-president, T. E. Tonnsen and S. Beer-nick; for second vice-president, R. Klubertanz and A. Schuman; for secretary, A. Podolske and H. Plukham; for treasurer, William Gallun; for sergeant at arms, A. Graunke and H. Reinke.

A general discussion followed and meeting adjourned at 10:10 p. m.

Thumb District Michigan Sheet Metalers Meet De- cember 4th at Bad Axe

The winter meeting of the Thumb District Sheet Metal Contractors of Michigan was held on Thursday night, December 4th, at the Hotel Irvin, Bad Axe. President P. Schmalz, of Harbor Beach, presided. Dealers from Cass City, Port Hope, Bad Axe, Caro, Pigeon, together with A. B. Lewless and F. E. Ederle, of Grand Rapids, were in attendance.

Mr. Ederle was first on the speakers' program and gave an outline of the program being conducted by the state association to increase the use of sheet metal products by the adoption of proper specifications and the use of proper material.

Mr. Lewless gave a blackboard talk on overhead and showed conclusively that this element in a small town shop amounts to at least one hundred per cent of the productive labor.

The meeting, including the splendid dinner, was a most enjoyable occasion and all present signified their intentions of attending all future meetings.

W. W. Chalk, Secretary of the State Auxiliary association, is deserving of great credit for having made all arrangements and for furnishing some honest to goodness cigars.

Tacoma Sheet Metal Men Hold Annual Turkey Banquet

In spite of the seemingly serious labor unrest and tendency of sheet metal men at Tacoma, Washington, to kick over the traces of their employers, the members of the Tacoma Sheet Metal Contractors' Association were not to be filched out of their annual turkey banquet.

This memorable event took place the latter part of November, not conflicting with Thanksgiving day, however, and in accordance with the laws of supply and demand, the price of Seidlitz powders at Tacoma was decidedly bullish.

P. P. Gunther, secretary of the organization, said that a large number of members of the Seattle Sheet Metal Contractors' Association and even one from the Portland Sheet Metal Contractors' Association were present at the banquet.

Secretary Gunther also says that the members look forward anxiously to their annual "feed" with great pleasure.

It gives the members the impression that they are all one big family working for the welfare of each individual.

Last spring Tacoma, Portland and Seattle formed an organization called the Sheet Metal Contractors' Association of the Pacific Northwest, the object being the betterment of the sheet metal industry.

Secretary Gunther of the Tacoma organization reports that the tri-city organization is pulling together in a splendid fashion and bids fair to accomplish its purposes.

August J. Luedke, With Milcor, Recovers From Operation

August J. Luedke, secretary and treasurer of the Milwaukee Corrugating Company, who has been away from his office for several weeks because of an operation, is now back on the job feeling better

than ever, fully recuperated and ready for his usual active part in the administration of the Milcor business.

The company is just completing the biggest year in its history and reports that every indication is that 1925 will be still greater. To take care of contemplated increases, a new addition of over 100,000 square feet is being added to the Milwaukee factories of the company.

J. D. Groesbeck Offers Solution to Scott's Tank Bracing Problem

J. D. Groesbeck, of Groesbeck & Murray, 25 South Grand Avenue, Bozeman, Montana, also has a solution to the tank bracing problem of William Scott, Juanita, Pennsylvania, appearing recently in AMERICAN ARTISAN.

Mr. Groesbeck writes as follows: TO AMERICAN ARTISAN:

In regard William Scott's tank bracing problem, I am sending a solution. If he cuts the brace 122½ inches long he will not waste much material. He must then mark the hypotenuse to cross at one end, it will then cross exactly in the center.

Yours truly,

J. D. GROESBECK.
Bozeman, Montana.

Michigan Sheet Metal Architectural Service Board Meets in Detroit December 3rd

The December meeting of the Architectural Service Board of the Michigan Sheet Metal and Roofing Contractors' Association was held in the assembly room of the Detroit Association on Wednesday afternoon, December 3rd. The meeting was presided over by chairman Lon J. Shouldice, of Battle Creek.

In addition to the regular board members, several of the larger sheet metal contractors of the state were present to assist the board in arriving at proper specifications for sheet metal and roofing work.

It had been hoped that at this meeting all specifications would be complete and that final adoption

could be made. This was not possible, because the work covered too great a field to be entirely gone over in one afternoon. However, a great deal was accomplished and the next meeting of the board will probably complete the work.

Following the meeting a dinner meeting was enjoyed at the Elks Club. This was furnished by members of the Detroit Association and proved a very enjoyable occasion.

Notes and Queries

Automobile Radiator Repair Outfits.
From Glenwood Sheet Metal Works, 808 Cooper Avenue, Glenwood Springs, Colorado.

Kindly inform us who makes the tools and equipment for automobile radiator repair work.

Ans.—F. L. Curfman Manufacturing Company, Marysville, Missouri, and Standard Equipment Company, 901-999 Second Avenue West, Cedar Rapids, Iowa.

"Pyrex" Glassware.
From A. E. Detwiler, 4012 Cottage Grove Avenue, Chicago, Illinois.

Please advise me who makes "Pyrex" glassware.

Ans.—Corning Glass Works, Corning, New York.

"Packer" Gas Stove.
From a Subscriber.
We should like to know who makes the "Packer" gas stove.

Ans.—Ohio Stove and Manufacturing Company, Columbus, Ohio.

Cut Iron Nails.
From Walsh Sheet Metal Works, 1216 West Commerce Street, San Antonio, Texas.

Kindly inform us who makes cut iron nails.

Ans.—Illinois Nail Company, 826 Dix Avenue, Chicago, Illinois.

Aluminum Rivets.
From Math. Lauer and Son, Stanley, Wisconsin.

We should like to know who makes aluminum rivets.

Ans.—Aluminum Company of America, 360 North Michigan Avenue, Chicago, Illinois; Blake and Johnson Company, 1500 Thomson Avenue, Waterbury, Connecticut, and Waterbury Brass Goods Company, Waterbury, Connecticut.

Radio Sets, Cutlery, and Electrical Goods Window Displays Bring in the Customers

Too Many Items in the Display Tends to Decentralize Attention So That No Single Article Is Remembered

THE accompanying Christmas gift window display was arranged for the Hennepin Hardware Company, 909 Hennepin Avenue, Minneapolis, Minnesota, by W. H. Owen.

The background is made with white crepe paper.

The articles displayed are radio sets, cutlery, houseware and electrical equipment.

Electrical goods displays have an important adjunct in the radio sales business.

The display shown has an unusually large assortment of articles. Whether this is good policy or whether it is better to confine each display to one article and making a fresh one more frequently is open to debate. The main argument used against more than one item at a

time is that which proves that the passer-by does not remember any one item in passing.

Window trimming is an art in itself. The men who dress the windows of large stores are highly paid specialists.

The window display is very much like an advertisement. It must stop the passer-by, interest him, convince him and impel him to buy. It must be balanced, properly focused, have unity, make proper use of colors and have a logical and pleasing arrangement of its parts. Unfortunately, many small retailers pay scant attention to their windows.

The show windows of a store are to the passer-by indicators of the character of the store. A grocery window containing an odd packing case, some canned goods, a pile of

dusty onions and a cardboard sign advertising a health drink is not an inviting display to hold up to customers.

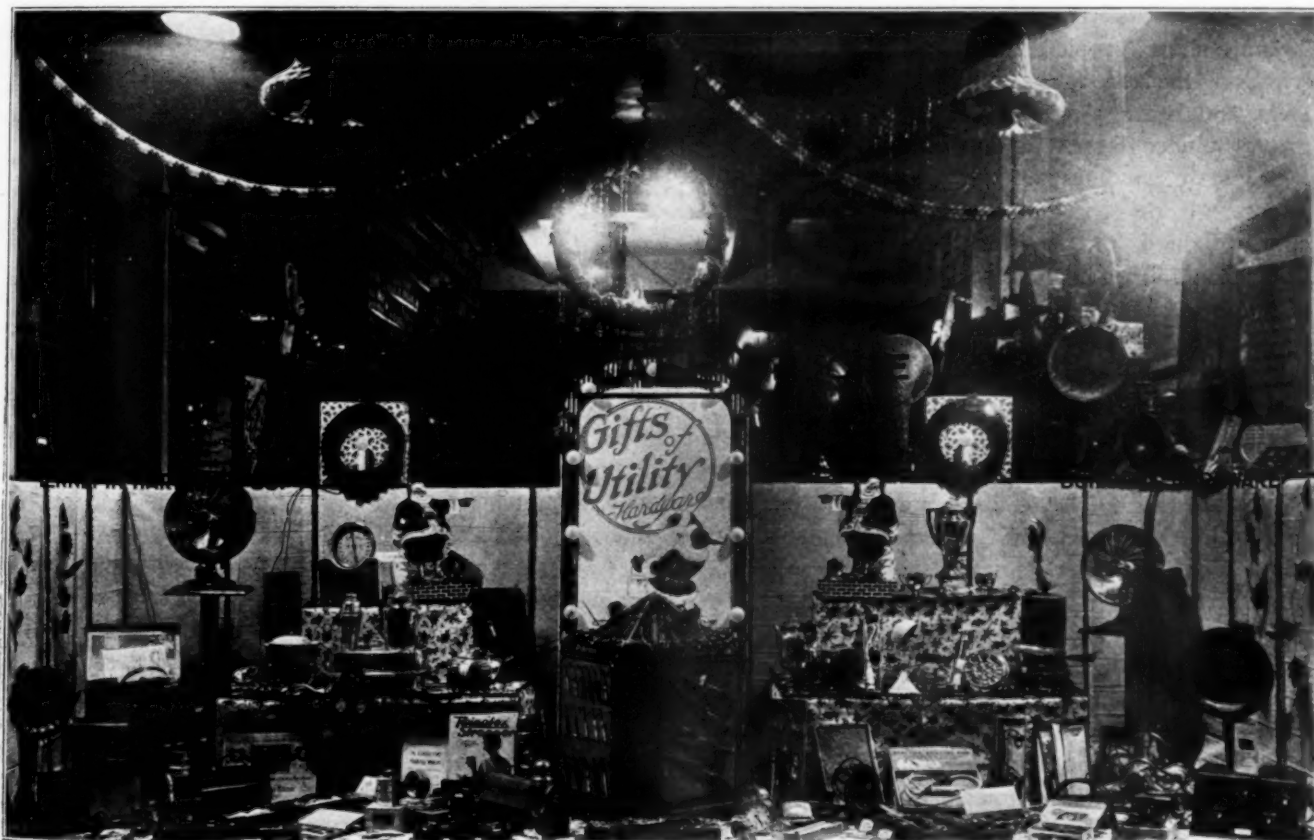
A store with unkempt windows is likely to be unkempt inside.

The public has become accustomed to demand cleanliness and order in stores. The store with attractive, well-planned window displays is bound to attract customers.

Treat your window the same as a blank page upon which you are going to write an ad.

Novel Window Display Increases Sales of Sporting Goods

Here is an idea to increase the sales of your sporting goods, and enlarge your mailing list. Get a large frame and mount about twenty



Window Display of Radio Sets, Cutlery and Electric Goods Arranged for Hennepin Hardware Company, 909 Hennepin Avenue, Minneapolis, Minnesota.

photographs of well known sportsmen on the American and National teams. Offer some interesting prizes to the boys who turn in the largest number of the correct names of these players.

Have contest blanks with spaces for the names of the ball players, for the boys to fill in. At the bot-

tom of the sheet ask each contestant to state whether he belongs to a sporting club of any kind or not, and if so, its name and address. After the contest is closed send out to this mailing list, a series of two letters and a sporting goods catalog, and you will find a nice increase in the sales in these goods.

py the center of the display alone, the most effective night display would be one where the white or red light shown directly upon the articles, while the surroundings would be made as dark as possible to form a contrast.

You undoubtedly have some definite ideas on this subject.

Why not share them with other men in the same line?

AMERICAN ARTISAN AND HARDWARE RECORD window display competition closes January 31, 1925.

Send in as many of your displays as you wish for entry in the competition. Do it now—you stand to win.

This contest is a window display contest as distinguished from the sheet metal prize contest also being conducted by the sheet metal department of AMERICAN ARTISAN AND HARDWARE RECORD.

How Do You Attract Attention to Your Window Displays at Night?

Tell Us by Entering Your Window Display Photographs in Our Competition Which Closes January 31, 1925

HOW important are the lights of a window display? This question may seem at first blush of inconsequential value. Be that as it may.

We readily understand how important the lighting system of a window display is when we consider that the greater portion of the average citizen's leisure time is in the evening. True, the institution of "daylight saving" during the summer months does detract somewhat from its importance. But on the whole the winter is long and the days are short; people are constantly passing the store to and from theaters and other places of amusement. Under these circumstances which store windows get the most attention, those that are dark or poorly lighted, or those that are brilliantly illuminated? The answer is self evident.

There are many ways of installing a window lighting system, but there is only *one correct way*.

That one correct way is to place the lamp reflectors so that the light is not wasted on the ceiling, nor thrown into the street, but is directed as nearly as possible upon the display.

The light itself should be obtained from a number of small lamps rather than from one or two large ones.

The intensity of the light will depend entirely upon the articles on display. Where a large number of articles are displayed, a soft diffused light should be thrown from above.

It must always be remembered that the object is to direct attention to the goods displayed. The entire layout, including background and decorative matter should be directed to that object.

Where one or two articles occur

58 Percent of Nebraska Hardware Retailers Lost Money on Their Investment in 1923

In Other Words, They Were Actually Paying a Premium to Their Customers to Draw a Salary

IN THE *Nebraska Iron Monger*, the membership organ of the hardware association in that state, there was recently published a very interesting article, entitled, "Where Is the Profit in Your Business? Perhaps There Is None—Do You Know Why?"

We quote from this article the following:

Apparently, the time has passed in Nebraska when it is possible to make money in spite of our methods of doing business. We can all remember a few years back when the story of our business was one of prosperity, and we all seemed to make plenty of net profits, regardless of what effort we put forth.

That this condition has changed, and that a closer study of our business needs to be made is borne out by the facts found in the Survey of the National Retail Hardware Asso-

ciation. The figures used are those reported by 31 hardware stores in Nebraska, and these are compared with the average figures of 1,248 hardware stores found at random throughout the United States. The study of the following table, prepared from this survey, indicates that the Nebraska merchant needs to get a better understanding of his business than these figures show for the year 1923.

We believe the logical plan to follow when you realize that you are not making sufficient net profit in your business is to analyze the situation and by comparison with the figures of those stores registering a greater net profit, seek to discover the reason why you are not making more money. We know that the average hardware dealer is a very busy man and so we have attempted to analyze for you the statistics as



This is an ARMCO Ingot Iron Roof on the Old Sazerac Building, New Orleans. It has already seen fifteen years of service. The roof was applied by the Gulf Galvanizing Works.

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Cable Address—ARMCO, Middletown, Ohio

assembled by the National Retail Association. In this condensed form, we believe you will be able to see at a glance just what place the Nebraska merchant holds with relation to dealers in other states:

It will be found that several of

than the average for the United States. It is a commonly accepted business principle, that where the turnover is slower, the margin must be higher. Yet, this table points out to us, that the Nebraska merchant in this respect is woefully deficient.

	31 Stores in Nebraska	1,248 Stores in United States
1. Number Reporting Net Loss.....	18	527
2. Average Sales	\$42,633.64	\$61,807.94
3. % Charge Sales to Total Net Sales.....	45.74%	54.20%
4. % Cost of Sales to Total Net Sales	75.26%	74.75%
5. % Margin to Total Net Sales	24.74%	25.25%
6. % Expense to Total Net Sales.....	24.82%	23.76%
7. % Profit to Total Net Sales	Loss 0.08%	Profit 1.49%
8. % Profit on Investment	Loss 0.14%	Profit 3.27%
9. Stock Turn	2.13 Times	2.37 Times
10. Average Salary Paid Each Owner	\$ 1,910.34	\$ 2,189.34
11. Average Salary Paid Each Clerk	1,201.22	1,256.34
12. Average Salary Paid Each Office Employee...	1,149.55	1,079.24
13. Average Salary Paid Each Deliveryman.....	1,165.63	1,135.10
14. Average Number of Persons—Management and Buying	0.32	0.52
15. Average Number of Persons—Selling	2.47	3.08
16. Average Number of Persons—Office Work...	0.53	0.82
17. Average Number of Persons—Deliverymen...	0.19	0.34
18. Average Sales—Each Actual Salesman	\$17,258.33	\$20,008.23
19. Merchandise Inventory at End of Year.....	15,389.42	20,350.80
20. Average Years Established in Business.....	14.45	13.31

the items in this table deserve especial comment. In these figures, interest on investment in the business has been treated as an expense. This is proper, since there can be no profit until a fair return on the investment of capital in the business has been secured. You should remember, therefore, in making comparisons of your own figures with either those of the Nebraska average, or with those of all the stores reporting, to be sure that interest on your investment in such amount as your capital would earn if placed with some other concern, is charged in your expense figure, shown in the table as Item 6.

Note Item 5. The margin shown is believed much too low. There was a time, not so far distant, that the hardware merchants were able to show from 30 per cent to 35 per cent margin on their sales, and now this has dwindled to less than 25 per cent. Nebraska merchants should awaken to this fact before the situation becomes much more serious.

When considering Item 9, it will be noted that while Nebraska is at a decided advantage by reason of a 25 per cent less annual inventory compared with the 1,248 stores reporting, the turnover is 2.13 or less

The reason is that his stock turn is slower, and yet his margin of profit is smaller than the average throughout the United States.

The merchant should continually keep before him the thought, that out of the margin obtained from the sale must come both cost of doing business and profit. Therefore, whenever the percentage of margin is less, something must be done to compensate for the loss. Either the amount of sales must be increased, or the amount of the expenses must be decreased. Item 6 of the table shows that the expenses of the Nebraska stores are more than 1 per cent higher than in the 1,248 stores in the United States.

Item 2 shows that the average sales are greatly less than the aver-

Nebraska merchant should give careful thought and study.

Item 19 shows that the Nebraska merchant has a great advantage over those in other states, in that the average inventory is less, and it should not be a difficult task for each merchant to greatly improve his conditions of turnover. There should not be as much dead stock on the shelves of the Nebraska merchant as elsewhere, and, therefore, the other items where the Nebraska merchant is deficient should be more easily corrected, because of the amount of merchandise carried. It would appear that what the Nebraska merchant needs is an awakening to this situation. Item No. 1 of the table requires our most serious consideration. Eighteen stores out of thirty-one reporting show a net loss, which condition is much worse than those found in the other neighboring states where the conditions are very similar to those in Nebraska, and is much more serious than in the United States as a whole. The following table will show this comparison:

If this average holds true in Nebraska, then the total of merchants out of our membership that failed to make any money last year is almost unbelievable. Surely this condition can be remedied, provided the Nebraska merchant awakens to the conditions. It doesn't seem possible that any business man is so hopelessly ignorant of what is going on in his business, or is so grossly careless that he cares not what happens. A business that is losing money soon must close its doors. Conditions surrounding these stores will not

	Number Reporting.	Number Showing Loss.	Per Cent.
United States	1,248	527	45.9
Nebraska	31	18	58.1
Iowa	55	28	50.9
Missouri	31	14	45.2
Illinois	102	31	30.3
South Dakota	33	15	45.5

age of the other stores in the United States. This makes the situation in Nebraska more serious, and it is no wonder that Items 7 and 8 show a loss when the other stores of the United States were making a profit. The situation is one to which every

change of their own accord. There is only one salvation to such a business—the manager must know exactly what is going on in the business, while it is going on, and when he knows the ailments of his business, he can apply the remedy.

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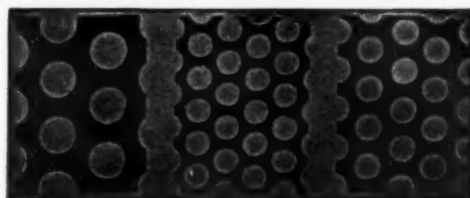
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When the ailments are not known, no remedy can be prescribed.

If the hardware merchants of this state will only arouse themselves and set about to make their business show at least a fair profit, and if they set to their task with the determination of knowing, intimately, all facts relative to their business, it will not take long before Nebraska merchants will be able to present figures far above the average of those shown. We have faith in Nebraska's merchants.

Editor's Note: We are inclined to agree with Editor and Secretary Dietz in most of what he says, but call attention to the fact that while the average inventory for Nebraska stores is nearly \$5,000 less than that for the entire country, it is considerably higher in proportion to the total sales, and that is where the chief trouble lies. The Nebraska merchants—and those in other states—whose turnover is less than three, must either reduce their stocks or increase their selling prices. It is more than possible that both can be done.

Stove Salesmen of Pennsylvania to Hold Banquet December 18.

The Twenty-Seventh Anniversary and banquet of the Stove Salesmen's Association of Pennsylvania will be held Thursday evening, December 18, 1924. The Walton Hotel, Broad and Locust Streets, Philadelphia, Pennsylvania, will be used for the occasion.

The actual dinner festivities will be staged at 6:30 p. m. promptly, but members can go to the hotel any time during the afternoon, as a room will be provided there for their entertainment.

This anniversary dinner, which in the past always has been very successful, promises to be even more elaborate this year.

The price to members is \$3.50 and to guests \$5.00.

In view of the preparations being made, the nominal charge will not cover the cost, all extras are being paid by the Association.

Coming Conventions

Western Retail Implement and Hardware Association Convention, Kansas City, Missouri, January 13, 14, 15, 1925. H. J. Hodge, Secretary, Abilene, Kansas.

Kentucky Hardware and Implement Association Convention, Jefferson County Armory, Louisville, week of January 18, 1925. J. M. Stone, Secretary-Treasurer, 200 Republic Building, Louisville.

Texas Hardware and Implement Association Convention, Dallas, Texas, January 20, 21, 22, 1925. Dan Scoates, Secretary-Treasurer, College Station.

West Virginia Hardware Association, Convention and Exhibit, Clarksburg, January 20 to 23, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton Ohio.

Missouri Retail Hardware Association Convention and Exhibit, Hotel Statler, St. Louis, January 26 to 28, 1925. F. X. Becherer, Secretary, 5106 North Broadway, St. Louis.

Convention of Indiana Fur-Mets, Indianapolis, Indiana, January 27 and 28, 1925. O. Voorhees, 36 West Tenth Street, Indianapolis, Secretary.

Indiana Retail Hardware Association, Convention and Exhibit, Cadle Tabernacle, Indianapolis, January 27 to 30, 1925. G. F. Sheely, Secretary, 911 Meyer-Kiser Building, Indianapolis.

Mountain States Retail Hardware Association, Convention, Denver, Colorado, January 27 to 30, 1925. W. W. McAllister, Secretary, P. O. Box 513, Boulder, Colorado.

Indiana Sheet Metal Contractors' Association, Convention, Lafayette, February (dates not decided). Leslie W. Beach, 1136 Main Street, Richmond.

Oklahoma Hardware and Implement Association, Convention, Masonic Temple, Oklahoma City, February 3, 4, 5, 1925. Charles L. Unger, Secretary-Treasurer, Oklahoma City.

Nebraska Retail Hardware Association, Convention and Exhibition, Omaha, February 3, 4, 5, 6, 1925. Convention headquarters, Rome Hotel. Exhibition, City Auditorium. George H. Dietz, Secretary, 4141-419 Little Building, Lincoln.

Wisconsin Retail Hardware Association, Convention and Exhibition, Auditorium, Milwaukee, February 4, 5, 6, 1925. P. J. Jacobs, Secretary-Treasurer, Stevens Point.

Ohio Hardware Association, Convention and Exhibition, Columbus, February 10 to 13, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio.

New York State Retail Hardware Association, Convention and Exposition Buffalo, February 10, 11, 12, 13, 1925. Headquarters, Hotel Statler. Exposition at the Broadway Auditorium. John B. Foley, Secretary, City Bank Building, Syracuse.

Iowa Retail Hardware Association, Convention, Savery Hotel; Exhibit, Armory, Des Moines, February 10 to 13, 1925. A. R. Sale, Secretary, Hardware Building, Mason City, Iowa.

North Dakota Retail Hardware Association, Convention (place not yet selected), February 11, 12, 13, 1925. C. N. Barnes, Secretary, Grand Forks.

Montana Implement and Hardware Association, Convention, Helena, February 13, 14, 1925. A. C. Talmage, Secretary-Treasurer, Bozeman.

Pennsylvania and Atlantic Seaboard Hardware Association, Convention and Exhibition, February 16 to 20, 1925, at Philadelphia Commercial Museum. Sharon E. Jones, Secretary, 604 Wesley Building, Philadelphia.

Illinois Retail Hardware Association, Convention and Exhibit, Hotel Sherman, Chicago, February 17 to 19, 1925. Leon D. Nish, Elgin, Illinois, Secretary.

Minnesota Retail Hardware Association, Convention, St. Paul Auditorium, St. Paul, February 17, 18, 19, 20, 1925. C. H. Casey, Secretary, Nicollet Avenue and Twenty-fourth Street, Minneapolis.

New England Hardware Dealers' Association, Convention and Exhibit, Mechanics' Building, Boston, Massachusetts, February 23, 24, 25, 1925. George A. Fiel, Secretary, 10 High Street, Boston.

South Dakota Retail Hardware Association, Exhibit, Coliseum, Sioux Falls, February 24 to 27, 1925. C. H. Casey, Secretary, Nicollet Avenue and 20th Street, Minneapolis, Minnesota.

Michigan Retail Hardware Association, Convention, Grand Rapids, February 24, 25, 26, 27, 1925. Hotel headquarters, Hotel Pantlind. A. J. Scott, Secretary, Marine City.

Michigan Sheet Metal and Roofing Contractors' Association Convention, Detroit, March 2 to 5, Hotel Tuller, F. E. Ederle, 1121 Franklin Street, Grand Rapids, Secretary.

American Hardware Manufacturers' Association convention, Hotel Adolphus, Dallas, Texas, April 21 to 24, 1925. F. D. Mitchell, 1819 Broadway, New York, Secretary.

Arkansas Retail Hardware Association, Convention, Little Rock, May, 1925. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock.

Southern Hardware Jobbers' Association convention, Dallas, Texas, April 21 to 24, Hotel Adolphus.

Retail Hardware Doings

Iowa.

Mr. Hill, who recently bought the Wickham & Dorsey Hardware at Manly, has sold to E. A. Hanson of Rudd.

Kentucky.

T. E. Horell has sold his interest in the Somerset Hardware Company at Somerset to his partner, R. E. Higgins.

Miller Hardware Company of Somerset has purchased the stock of Miller Brothers. The business will be conducted by C. B. Miller, who has been in charge of the store for many years.

Louisiana.

The Brown-Roberts Hardware Company at Alexandria will open a retail hardware department the early part of 1925.

Minnesota.

Jesse Smith and Wallace Rudolph have recently opened up a hardware store in the Heims Block at Renville, and are doing a good business.

Missouri.

Raphael Stacy is in the hardware business at Princeton again. He and his son, Festus, have bought back the Stacy Brothers hardware stock from Noel Moss.

North Dakota.

Fire destroyed the Sell Hardware and Harness Company at Parshall.



Put yourself on your Christmas list

YOU can give to yourself at Christmas time, and yet be unselfish and as charitable as you like to be. Buy Christmas Seals.

Everywhere there are men and women whose only hope for life and health is in the Tuberculosis Associations. Christmas Seals furnish the funds to bring these men and women sufferers from tuberculosis back to health. When you buy Christmas Seals, it is *you* who are giving them the greatest gift that lies within the reach of man—the gift of life.

Every life you save from tuberculosis means additional protection for you and your family. Funds from the sale of Christmas Seals have eliminated half the deaths from tuberculosis. Help stamp out the dread disease. Buy Christmas Seals.



STAMP OUT
TUBERCULOSIS
WITH
CHRISTMAS
SEALS

Commodity Values Rising—Stimulus Given Industry by Steel Orders

Nonferrous Metals Continue Strong, While Markets Both Here and Abroad Are Active

STIMULUS given to trade and industry by the election of President Coolidge was strikingly illustrated by reports from the steel industry. A veritable flood of orders for steel has been released with which even steadily expanding plant operations are unable to keep pace.

The United States Steel corporation reported an increase of 506,699 tons in unfilled orders last month, which was much larger than commonly expected. The increase occurred although plant operations have been increased to around 80 per cent of capacity at present. Last month showed the largest gain in unfilled orders since September, 1922, and also marked the fourth consecutive month to show an increase.

Another indication of the strong tide of trade is the railroad freight movement, which is showing less than the usual seasonal decline. Freight loadings for the week ended November 29 totaled 878,631 cars, an increase of 43,550 cars, or more than 5 per cent over the corresponding week last year. Due to the Thanksgiving day holiday, however, there was a decrease of 131,901 cars from the preceding week.

A variety of "Christmas presents" to stockholders, aggregating around \$4,000,000, has been announced by a dozen corporations. They were indicative of a fairly prosperous year and optimism as to next year.

Copper.

Electrolytic copper has held firmly at 14.25 cents, delivered Connecticut, for prompt and first quarter deliveries, and at 14.37½ cents, delivered middle western points.

Business has been done in fair volume at these prices. Just be-

fore the market advanced from 14.12½ cents, an extremely heavy business was done.

Lead.

The deadlock in the market is unbroken. The two largest factors continue to sell a limited tonnage to regular customers below the open market.

Consumers who are unable to satisfy current requirements at these sources are paying as high as 8.95 cents East St. Louis and 9.10 cents to 9.25 cents New York, since the American Smelting advance Monday to 8.75 cents New York.

Tin.

The tin market has been slipping a little in London, but increasing sterling exchange rates have kept our import costs up.

The price of spot and future Straits has ranged between 54.50 cents and 55.25 cents this week. The world visible supply increased 2000 tons in November, reflecting release of stocks from the Eastern pool.

Zinc.

European buying of zinc reappeared on the recent reaction in prices from 7.10 cents to 6.95 cents, East St. Louis, whereupon our market quickly rebounded above 7 cents.

The reaction was due to realizing sales by speculators who were able to show a profit from the previous rise.

The November statistics for slab zinc will be published this week and are expected to be favorable. Smelters are selling carefully.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$20.00 to \$20.50; old iron axles, \$27.00 to \$27.50; steel springs, \$22.50 to \$23.00; No.

1 wrought iron, \$16.00 to \$16.50, No. 1 cast, \$17.00 to \$17.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; light brass, 6¼ cents; lead, 7 cents; zinc, 4 cents, and cast aluminum, 16½ cents.

Solder.

Chicago warehouse prices on solder are as follows: Warranted, 50-50, \$34.00; Commercial, 45-55, \$33.25, and Plumbers', \$33.00, all per 100 pounds.

Pig Iron.

A shortage of early pig iron has developed at Chicago and some melters have been obliged to curtail operations slightly because of it. All districts report good shipments with modest selling. Steelmakers are showing more interest in basic as their operations grow. Prices are working higher.

The chief worry of northern iron interests is in meeting demands of melters for expediting shipments. Some melters are forced to curtail operations slightly, owing to a shortage of iron.

Others are sending their own engines to furnace yards to take a few carloads available. Stocks on furnace yards are so broken up that the supply is practically depleted.

It is reported valley iron has been shipped to outlying points in Chicago territory.

Meanwhile buying proceeds at a good rate, though below the average of recent weeks. Practically all melters have anticipated January contract quotas. One melter this week bought for the third time since the buying movement began.

The market is firm at \$22, furnace, for northern malleable and No. 2 foundry, with silicon differentials \$1.